

DataWarehouse Training

Linking tables in New FINET (StateDW)

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Introduction

This document covers which fields to use when linking tables together in StateDW and the best method for linking tables together so you can avoid common problems.

For the examples we used Microsoft Access, but it is very similar to Microsoft Query which is used for Microsoft Excel.

If you use [COGNOS](#) (requires a logon - [contact us](#)) you do not have to worry about linking tables as we have taken care of all the worries for you. All you need to do is select the fields you want.

If you are using any other ODBC compliant applications although the method for establishing links may be different, the information will still apply.

Linking Tables

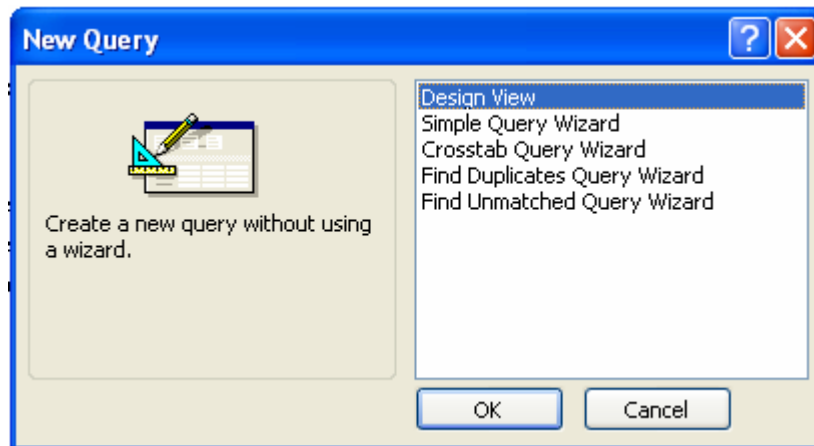
Create the Link

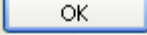
In this example we will be linking the Accounting_Journal and Department_Unit tables together to get the Department Name. When linking to the Department_Unit table from the Accounting_Journal or Accounting_Journal_Summary you must link both the Department, Fiscal Year and Unit fields (Do not use AR_Dept, AR_Unit fields).

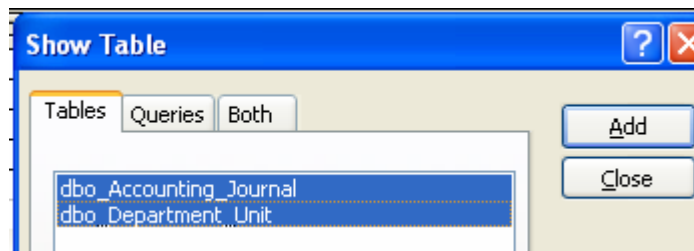
Open your Microsoft Access database with all your StateDW tables already linked. (Don't have one or need to link to more tables? [See our instructions](#) for linking to StateDW tables using Microsoft Access.)

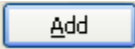
Click on the  Queries tab.

Click on the  button. The "New Query" window will be displayed (see below).

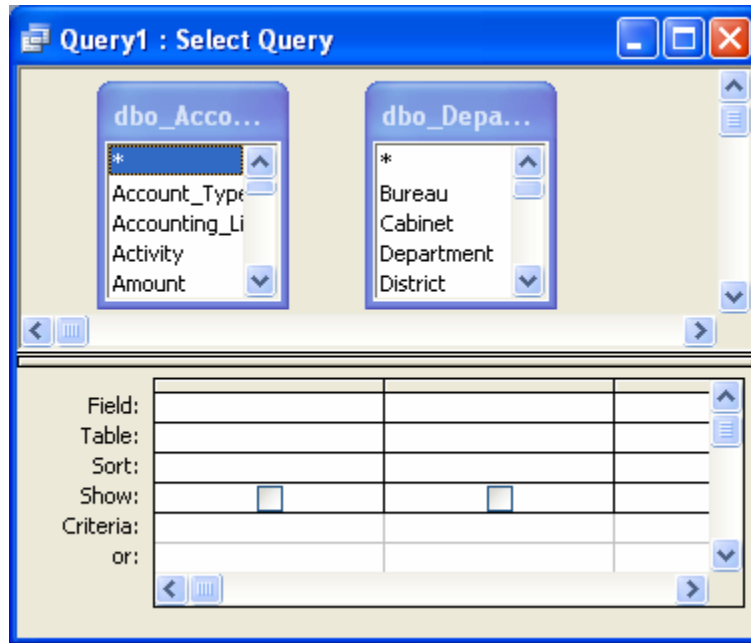


Make sure the "Design View" is selected and click . The "Show Table" window will be displayed (see below).

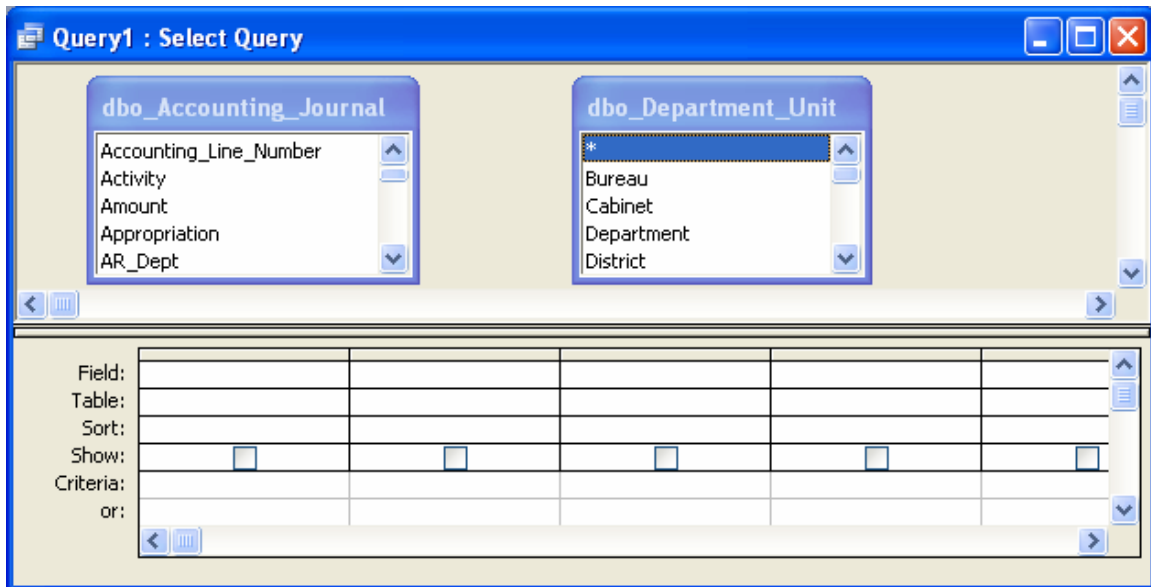


Next, select both tables to bring them into your query. Click on the Accounting_Journal table, hold down the <CTRL> key and click on the Department_Unit table. If you have done this right it should look like the image above. Click on the  button.

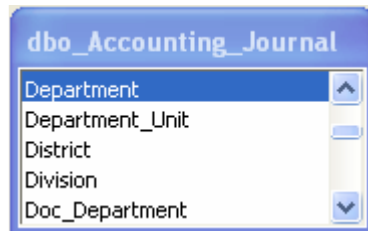
Now the “Select Query” window should look like this.



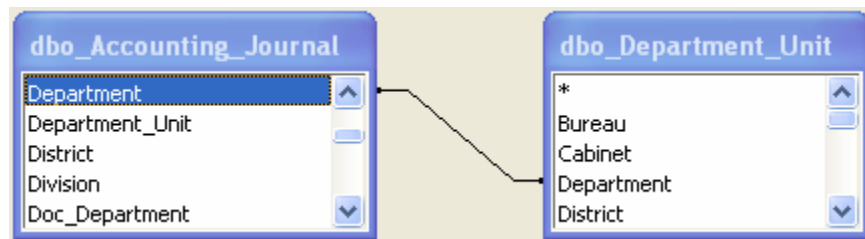
You may want to adjust the table sizes so you can read them better (See below).



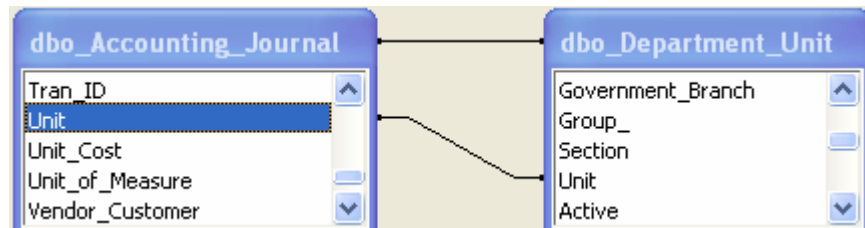
Next scroll down the fields list for Accounting_Journal and locate the Department field and select it (See image below).



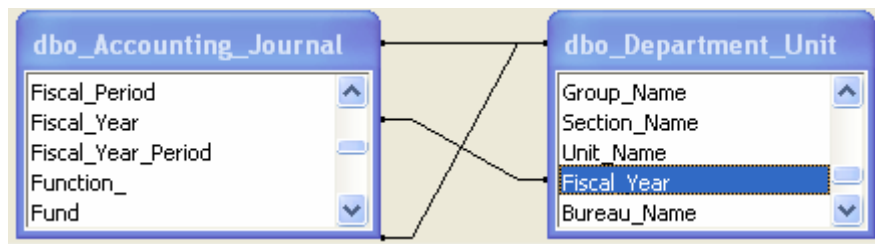
Now click the Department field and drag your mouse pointer over to the Department field on the Department_Unit table. When the Department field highlights let go of the mouse, and you should see a line (link) between the tables (see image below).



Repeat this process for the Unit field (see image below).



Repeat this process for the Fiscal_Year field (see image below).



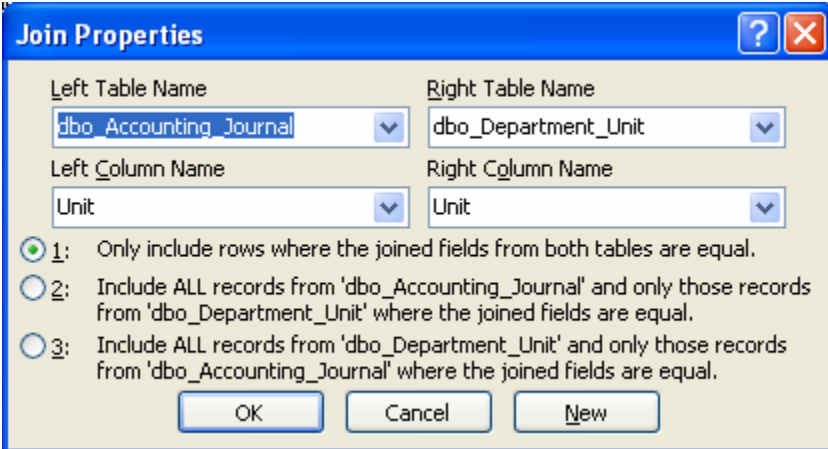
You have now linked to the two tables. Next we cover [Join Properties](#) to complete the link.

Join Properties

Setting the join properties will ensure that the data returned is exactly what you expect. You always want all the records from the main table, if you don't have your join properties set correctly you may get incorrect results back.

To set the join properties you must first link the tables together (if you have not done this see the section above on [Create the Link](#)).

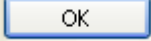

Double click on either link line, its pretty narrow and hard to get sometimes but if you do get it the "Join Properties" window should appear (see below).

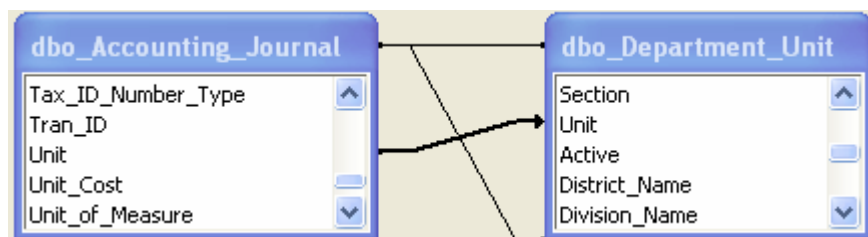


The "Join Properties" dialog box is shown. It has a title bar with a question mark and a close button. The "Left Table Name" is "dbo_Accounting_Journal" and the "Right Table Name" is "dbo_Department_Unit". The "Left Column Name" is "Unit" and the "Right Column Name" is "Unit". There are three radio buttons for join types: 1 (selected), 2, and 3. Radio button 1 is selected, indicating an inner join. The text for radio button 1 is "Only include rows where the joined fields from both tables are equal." The text for radio button 2 is "Include ALL records from 'dbo_Accounting_Journal' and only those records from 'dbo_Department_Unit' where the joined fields are equal." The text for radio button 3 is "Include ALL records from 'dbo_Department_Unit' and only those records from 'dbo_Accounting_Journal' where the joined fields are equal." There are "OK", "Cancel", and "New" buttons at the bottom.

In this case it's the Unit link. Now it's important that if there is ever no match in the Department_Unit table that we still get the records back from the Accounting_Journal. To accomplish this click on the radio button that reads

- ☒ 2: Include ALL records from 'dbo_Accounting_Journal' and only those records from 'dbo_Department_Unit' where the joined fields are equal.

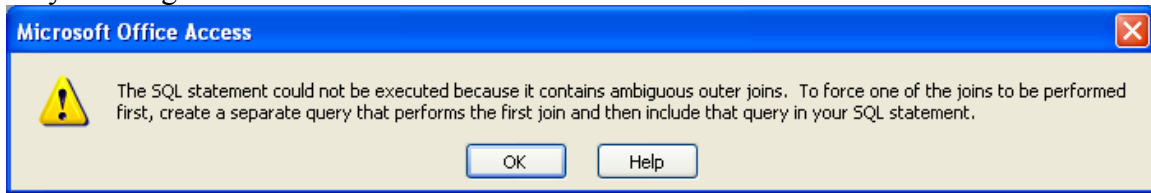
And then click on the  button and you should now see an arrow  Unit on the link that is pointing to the Unit table (see image below).



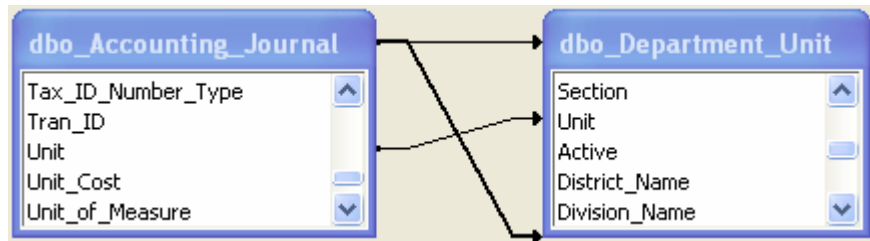
IMPORTANT: You must repeat these steps for all other links AND they must be the same

- ☒ 2: Include ALL records from 'dbo_Accounting_Journal' and only those records from 'dbo_Department_Unit' where the joined fields are equal.

Or you will get this error



You should see arrows pointing to the Department_Unit table for all links (see image below).



You are now ready to select records from either table as needed.

You can link more than two tables if you want be sure to follow the [Linking StateDW Table Guide](#) rules to ensure that you get the correct results.

Linking StateDW Table Guide

Below is the guide for linking a table. All fields must be linked and be sure to set the [Join Properties](#) as well.

Table	Fields that must be used when linking
Activity	Fiscal_Year Department Activity
Appropriation_Unit	Fiscal_Year Appropriation
Balance_Sheet_Account	Fiscal_Year BS_Account
Commodity_Code	Commodity_Code
Department	Department
Department_Revenue_Source	Fiscal_Year Revenue_Source
Department_Unit	Fiscal_Year Department Unit
Fiscal_Year	Fiscal_Year
Function_	Fiscal_Year Department Function
Fund	Fiscal_Year Fund
Major_Program	Department Major_Program
Object	Fiscal_Year Object
Phase	Department Phase
Phase_Program	Department Phase Program
Program	Department Program
Program_Period	Department Major_Program Program_Period
Required_Activity_Unit	Fiscal_Year Activity Unit (optional)
Required_Function_Unit	Fiscal_Year Function Unit (optional)

Required_Program_Unit	Fiscal_Year Program Unit (optional)
Revenue_Source	Fiscal_Year Revenue_Source
Vendor_Customer	Vendor_Customer